

**North Dakota Department of Health**  
**NDPDES Storm Water Permitting Policy**  
**Designation Criteria for Small MS4s**  
December 19, 2002

This policy identifies the small Municipal Separate Storm Sewer Systems (MS4s) that are required to obtain a permit under the North Dakota Pollutant Discharge Elimination System (NDPDES) pursuant to the EPA's Storm Water "Phase II" Final Rule published on December 8, 1999 (64 FR68722). The rule requires the Department, as the delegated permitting authority, to develop criteria for designating MS4's for regulation and to issue permits for discharges from MS4s designated as "regulated" small MS4s (40 CFR 123.35).

The phase II rule includes four provisions by which a small MS4 may be designated as a "regulated" small MS4 and thus require permit coverage. A system may be designated as "regulated" by any of the following:

- 1) Automatic designation - Small MS4s located within the boundaries of a Census Bureau-defined Urbanized Area (UA) based on the latest decennial census;
- 2) Potential designation by permit authority - Small MS4s that are located outside of UAs determined to result in or have the potential to result in significant water quality impacts;
- 3) Contributes to an interconnected "regulated" MS4 - Small MS4s that contribute substantially to pollutant loadings of a physically interconnected MS4 regulated by the NDPDES storm water program; or
- 4) Petition for designation - Small MS4s may be designated following a final determination by the Department on a petition, or request, for designation.

This document outlines the criteria and process the Department will use in determining whether specific small MS4s will be designated as "regulated" small MS4s.

Unless otherwise indicated by the Department the applications for coverage under the general permit will be due by March 10, 2003, for the small MS4s identified as located within an urbanized area. Additional small MS4s, identified at a later date, will be required to submit applications within 180 days of notification by the Department.

## **1. Automatic Designation**

The Phase II Final Rule requires coverage of all operators of small MS4s that are located within the boundaries of a Bureau of the Census-delineated "urbanized area" (UA) based on the latest decennial Census (40 CFR 122.32[a][1]). This does not just include municipal operators of small MS4s, but also universities, highway departments, and any other operator of a storm sewer system that is located fully or partially within the UA. At a minimum, the small MS4 must obtain permit coverage for the portion of the system located within the boundary of the UA. A small MS4 that is designated into the program based on the UA boundaries cannot be waived from the program if in a subsequent UA calculation the small MS4 is no longer within the UA boundaries. A list of regulated small MS4s located at least partially in an urbanized area is provided in Table 1.

Small MS4s affiliated with a UA will be required to implement the provisions of the storm water permit within the area served by the MS4 where storm water from residential, commercial, or industrial development is contributed to a system serving an UA. In no case will the requirements of the MS4 permit apply to areas used for agriculture that may be located in the general vicinity of a MS4. The boundaries for the MS4 will vary depending on the type of entity operating the MS4. Generally, the following will be considered the minimum boundaries for automatically designated MS4s:

- a. The city limits for cities;
- b. The property boundary for public institutions/complexes;
- c. The area described by a county that includes any urbanized area along with any areas of development within the counties jurisdiction that are interconnected with an adjoining regulated MS4.

The rule provides that a facility may cooperate on all or part of the storm water pollution prevention program developed by another entity (40 CFR 122.35). This option is particularly beneficial for operators that are adjacent to a regulated MS4, serve low populations, or have limited resources. The facility will remain responsible for compliance with the permit within their jurisdiction.

The state and federal entities required to submit applications for systems located in urbanized areas in North Dakota are identified in Table 1. The facilities identified for permitting in the state consist of more than a few buildings and have a significant user and/or resident populations (greater than 1000 people). The definition of small MS4 includes systems similar to separate storm sewer systems in municipalities, such as systems at military bases, large hospital or prison complexes, and highways and other thoroughfares. In regard to state and federal facilities the preamble to the Phase II rule states: "The minimum measures for small MS4s were written to apply to storm sewer 'systems' providing storm water drainage service to human populations and not to individual buildings" (64 FR 68749). The preamble goes on to indicate that a complex of two or three buildings could be treated as an individual building. In the case of the Department of Transportation, the preamble includes an explanation of why the DOT highway systems are subject to small MS4 permit requirements. The general rationale being that the highway system represents a large area within an UA with a potential for significant effects on interconnected regulated small MS4s.

The Department is granting waivers from permitting for small MS4s serving populations of less than 1000 as allowed for under 40 CFR 123.35(d)(1). The MS4s granted waivers are listed in Table 2, along with the key criteria qualifying the facility for the waiver. For all facilities listed, the Department has no information indicating the facilities are contributing substantially to a physically interconnected regulated MS4. In addition the facilities do not discharge to a water body identified in the state's section 303d list as "not supporting" a designated use due to a pollutant attributed to MS4 discharges.

The Department has not identified any MS4s serving populations between 1000 and 10000 people for a waiver from the Phase II permitting requirements. The Department does not have sufficient water quality or "total maximum daily load" (TMDL) information available for storm sewer discharges from MS4s serving more than a 1000 people to meet the criteria described in the rule (40 CFR 123.35[d][2]).

The Department may require a permit from a waived facility based on new information on the MS4 discharge or changes to the MS4 such that the criteria for the waiver is no longer satisfied. State and federal office buildings or complexes that have not been identified as regulated MS4s are considered waived. A waived state or federal small MS4 may be required to obtain a

permit, like any other small MS4, should it be determined that the waiver criteria are no longer satisfied.

## **2. Potential Designation**

The Phase II Final Rule requires the Department as the permitting authority to develop a set of designation criteria and apply them to MS4s outside of urbanized areas (40 CFR 123.35[b]). MS4s serving jurisdictions with a population of at least 10,000 and with a population density of at least 1,000 people per square mile must be evaluated prior to December 9, 2002 (40 CFR 123.35[b][2]&[3]). The Department can apply the criteria to make additional designations, as appropriate, at any time.

All cities with a population of 10,000 or greater have been designated for coverage. The MS4s are required to obtain a permit unless the operator of the MS4 conclusively demonstrates to the Department that their discharges do not contribute or have the potential to contribute to the violation of a water quality standard. The applications for coverage under the general permit will be due by June 10, 2003, 180 days after the finalization of the permit and this accompanying policy. The affected cities are listed below:

Dickinson  
Minot

Jamestown  
Williston

**Description of Designation Criteria.** The designation criteria is designed to consider whether storm water discharges from a small MS4 results, or potentially results, in exceedances of water quality standards, including impairment of designated uses, and/or adverse habitat or biological impacts. The Department's designation criteria applies a scoring system to the considerations identified by the EPA in the Phase II rule proposal (40 CFR 123.35[b][1]). As a rule, MS4s that score 25 or more will be designated for permit coverage and MS4s that score less than 25 will not be designated. The following is the Departments criteria for designating small MS4s for permit coverage.

### **Population Served by MS4**

This factor summarizes population density, growth potential and, to some extent, the significance of pollutant contribution to receiving waters. The population factor will be rated on the basis of the population of the community served by the MS4 and any adjacent communities. Scoring will be:

1 point            per 1000 people

### **Sensitivity of Receiving Waters**

This factor evaluates the designated uses, special uses and known impairments for water bodies effected by the MS4. The receiving waters will be rated based largely on the classification designated in the state's water quality standards. Additional consideration will be given to waters listed as impaired (303d list) or listing as critical habitat. Scoring will be:

10 points        Class I and IA streams and Class 1,2 and 3 lakes

7 points        Class II streams, Class 4 lakes, and any tributary within 3 miles of water body listed in the 10 point group

5 points        Class III streams

2 points      Streams not specifically classified, Class 5 lakes, and wetlands

Additional points will be assessed for each of the following:

2 points      Identified on the state's 303(d) list as impaired due to a MS4 pollutant of concern (BOD [Low DO], sediment, nutrients, oil/grease, human pathogens)  
2 points      Identified as critical habitat for threatened or endangered species  
3 points      Designated as an Outstanding State Water Resource

**Located Contiguous to an Urbanized Area**

This factor considers the collective effect of MS4 discharges adjacent to an urbanized area and potential impacts on a neighboring regulated MS4. The MS4 will be rated on whether or not it is located adjacent to a UA. Scoring will be:

10 points      MS4 is located adjacent to a UA

0 points      MS4 is not located adjacent to a UA

**Significant Contributor of Pollutants / Ineffective Water Quality Protection**

This factor evaluates the significance of the MS4's contribution of pollutants to a water body and the effectiveness of any existing controls to prevent the contribution of pollutants to a water body. The contribution of the MS4 discharge will be rated on the basis of an evaluation of all waters of the state that receive a discharge from the MS4. The evaluation needs to show that storm water controls are (or are not) needed based on wasteload allocations (WLA) that are part of an EPA approved or established TMDL that addresses the pollutants of concern or an equivalent analysis. Scoring will be:

25 points      An evaluation attributes a major portion (35% or more) of the pollutant loading causing impairment to the MS4 and a WLA requires significant reductions in pollutant contribution from the MS4

10 points      An evaluation shows that additional controls or operating practices are needed to meet a WLA

5 points      An evaluation has not been completed; or an evaluation shows current controls or operating practices are adequate to meet any assigned WLA

0 points      An evaluation shows that storm water controls are not needed

The Director of the Division of Water Quality may take into account other factors or circumstances not addressed in the scoring system to make the final determination on whether or not to designate an MS4. The scoring system was developed as a tool to evaluate the potential impacts from MS4s on a reasonably consistent basis and require permits where appropriate. The score obtained may not always adequately characterize the conditions of a specific MS4 and thus the Department must exercise its judgement in determining if all factors have been considered and considered correctly.

### **3. MS4 Physically Interconnected to Another MS4**

As required by 40 CFR 123.35 (b)(4), a small MS4 that contributes substantially to the pollutant loadings of a physically interconnected MS4 already regulated under Phase II must be included in the program. To be “physically interconnected,” the MS4, including roads with drainage systems and municipal streets, is physically connected directly to a municipal separate storm sewer of another entity. Any small MS4s identified for regulation as a physically interconnected system will be required to submit applications within 180 days of notification by the Department.

### **4. Petition for Designation**

A person may petition to have a small MS4 designated for permit coverage as provided under 40 CFR 122.26(f). The Department must make a final determination within 180 days of the receipt of a petition as required under 40 CFR 123.35(c). The determination will be based on the application of the designation criteria to the MS4. Any small MS4s identified for regulation based on a petition will be required to submit applications within 180 days of notification by the Department.

**Table 1.**  
**Regulated Small MS4s Located in Urbanized Areas**

	<b>Fargo/Moorhead</b>	<b>Grand Forks</b>	<b>Bismarck/Mandan</b>
Cities (w/pop. > 1000)	Fargo West Fargo	Grand Forks	Bismarck Mandan Lincoln
Counties (Parts located in UA or contributing to regulated city)	Cass	Grand Forks	Burleigh Morton
Public Facilities	North Dakota State University  ND Department of Transportation	University of North Dakota  ND Department of Transportation	Bismarck State College  ND Department of Transportation
Waivers			
Significant waived MS4s with population (or equivalent) less than 1000	North River Prairie Rose Frontier Briarwood Veterans Hospital		State Penitentiary

**Table 2.**  
**Waivers for Small MS4s Located in Urbanized Areas**

City / Facility	Receiving water body	Water body listed in 303d as Not supporting uses /1	Population /2 (or equiv.)	Identified as significant contributor to other MS4	Grant Waiver
North River	Red River	No	65	No	Yes
Prairie Rose	Red River / Fargo MS4	No	68	No	Yes
Frontier	Red River / Fargo MS4	No	273	No	Yes
Briarwood	Red River	No	78	No	Yes
Veterans Hospital	Fargo MS4 to Red R.	No	109 beds 600 staff (rotating) per VA	No	Yes
State Penitentiary	Hay Creek / Bismarck MS4	No	approx. 620 inmate 200 staff (rotating) per DOCR 2001 Biannual Report	No	Yes
University of North Dakota	English Coulee / Grand Forks MS4	Yes	11,700 enrollment for Fall 2001	No	No
North Dakota State University	Red River / Fargo MS4	No	10,500 enrollment for Fall 2001	No	No
Bismarck State College	Missouri River / Bismarck MS4	No	3,044 enrollment for Fall 2001	No	No

/1. Per the North Dakota 2002 Section 303d List of Waters Needing TMDLs, December 2002

/2. Per 2000 census unless noted.

## Glossary

Note: This glossary is provided for informational purposes only; legal definitions of these terms can be found in the Code of Federal Regulations at 40 CFR Section 122.26(b) or in the Phase II Final Rule, published December 8, 1999 (64 FR 68722).

*Municipal separate storm sewer* means a conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made channels, or storm drains):

- (i) Owned or operated by a State, city, town, borough, county, parish, district, association, or other public body (created by or pursuant to State law) having jurisdiction over disposal of sewage, industrial wastes, storm water, or other wastes, including special districts under State law such as a sewer district, flood control district or drainage district, or similar entity, or an Indian tribe or an authorized Indian tribal organization, or a designated and approved management agency under section 208 of the Clean Water Act that discharges to waters of the United States;
- (ii) Designed or used for collecting or conveying storm water;
- (iii) Which is not a combined sewer; and
- (iv) Which is not part of a Publicly Owned Treatment Works (POTW) as defined at 40 CFR Section 122.2.

*Physically interconnected* means that one MS4 is connected to a second MS4 in such a way that it allows for direct discharges to the second system.

*Regulated small MS4* means an MS4 which is automatically designated for inclusion in the Phase II storm water permitting program by its location within an urbanized area, or by designation by the NPDES permitting authority.

*Small municipal separate storm sewer system* means all separate storm sewers that are:

- (i) Owned or operated by the United States, a State, city, town, borough, county, parish, district, association, or other public body (created by or pursuant to State law) having jurisdiction over disposal of sewage, industrial wastes, storm water, or other wastes, including special districts under State law such as a sewer district, flood control district or drainage district, or similar entity, or an Indian tribe or an authorized Indian tribal organization, or a designated and approved management agency under section 208 of the Clean Water Act that discharges to waters of the United States.
- (ii) Not defined as "large" or "medium" municipal separate storm sewer systems pursuant to 40 CFR Sections 122.26 (b)(4) and (b)(7).
- (iii) This term includes systems similar to separate storm sewer systems in municipalities, such as systems at military bases, large hospital or prison complexes, and highways and other thoroughfares. The term does not include separate storm sewers in very discrete areas, such as individual buildings.

*Storm water* means storm water runoff, snow melt runoff, and surface runoff and drainage.

*Urbanized Area:* For Census 2000, the Census Bureau classifies "urban" as all territory, population, and housing units located within an urbanized area (UA) or an urban cluster (UC). It delineates UA and UC boundaries to encompass densely settled territory, which consists of: core census block groups or blocks that have a population density of at least 1,000 people per square mile and surrounding census blocks that have an overall density of at least 500 people per square mile. In addition, under certain conditions, less densely settled territory may be part of each UA or UC. **Note: Refer to the U.S. Census Bureau website at [http://www.census.gov/geo/www/ua/ua\\_2k.html](http://www.census.gov/geo/www/ua/ua_2k.html) for more details.**